

AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows:

14. Spinal osteosynthesis device comprising:

at least two bone-anchoring elements; and

means for longitudinally connecting the at least two
bone-anchoring elements;

each of the at least two bone-anchoring elements
comprising:

a head shaped so as to allow grasping with a
screwing tool;

a threaded shank extending from the head, and

a tightening element which can be fitted onto the
threaded shank to immobilize an assembly comprising the means for
longitudinally connecting and a corresponding one of said at
least two bone-anchoring elements,

wherein the threaded shank has a ball end, the head of
each of the at least two bone-anchoring elements having an
opening into a recess defined by an approximately hemispherical
interior surface sized to receive the ball of the threaded shank,
the head having a hemispherical exterior surface; and

wherein said interior surface and said exterior surface
are continuous on a periphery of the recess, the interior and
exterior surfaces extending beyond the periphery on a side
opposite a bottom of the recess, so as to define a continuous
wall therebetween, the wall protruding on said side opposite a

bottom of the recess, said wall extending around said ball and in an immediate vicinity of said ball, said wall tapering and terminating in a free edge defining the opening having a diameter that is less than a diameter of the ball, the bottom of the recess lying on one side of an equator of the ball, a part of the ball around which the free edge extends lying on an opposite side of the equator of the ball.

31. Spinal osteosynthesis device comprising:

at least two bone-anchoring elements; and

means for longitudinally connecting the at least two bone-anchoring elements;

each of the at least two bone-anchoring elements comprising:

a head shaped so as to allow grasping with a screwing tool, the head having an opening into a recess defined by an approximately hemispherical interior surface;

a first threaded shank with a ball end extending from the head, the recess of the head being sized to receive the ball end of the first threaded shank;

a second threaded shank rigidly extending from the head opposite the recess; and

a tightening element which can be fitted onto the first threaded shank to immobilize an assembly comprising the means for

longitudinally connecting and a corresponding one of said at least two bone-anchoring elements,

wherein the head has a hemispherical exterior surface;
and

wherein said interior surface and said exterior surface are continuous on a periphery of the recess, the interior and exterior surfaces extending beyond the periphery on a side opposite a bottom of the recess, so as to define a continuous wall therebetween, the wall protruding on said side opposite a bottom of the recess, said wall extending around said ball and in an immediate vicinity of said ball, said wall tapering and terminating in a free edge defining the opening having a diameter that is less than a diameter of the ball, the bottom of the recess lying on one side of an equator of the ball, a part of the ball around which the free edge extends lying on an opposite side of the equator of the ball.